estimated screening test performance and PCHI prevalence in those who were or were not admitted to NICU.

Methods Eligible studies, reporting UNHS-detected PCHI prevalence in very highly-developed countries (no restrictions by language or date), were identified from six electronic databases (January 2017) along with references of cited papers and unpublished literature (November 2017). Papers reporting on at-risk populations only, with no English abstract (unless unpublished), or of ineligible study type were excluded. Two reviewers independently extracted data and assessed quality of included papers using criteria adapted from the Newcastle-Ottawa, STARD and QUADAS-2 tools, with differences resolved by consensus. Pooled prevalence was estimated from random-effects models using Freeman-Tukey double arcsine transformation. Negative predictive value (NPV), sensitivity and specificity were calculated only for studies with follow-up to ascertain false negatives, whilst positive predictive value (PPV) calculation was not restricted by follow-up. Confidence intervals (95% CI) were estimated using Wilson (Score) methods (Stata: Release 15; StataCorp LP).

Results 41 eligible reports on 32 study populations (1,799,863 infants) were identified from 6195 non-duplicate references. Pooled UNHS-detected PCHI prevalence was 1.08 (95% CI 0.90 to 1.28) per 1000 screened (I^2=89.2%). Prevalence was 6.9 times (95% CI 3.8 to 12.5) higher among those admitted to NICU (3 studies). Smaller studies were significantly associated with larger prevalences (Egger's test: p=0.017). PPV ranged from 1.5%–83.5% (25 studies), NPV 100% (7 studies), sensitivities 88.9%–100% (8 studies) and specificities 92.3%–99.9% (7 studies). Quantitative pooling of screening programme performance was not possible due to methodological differences.

Conclusion In very highly-developed countries, around 1 per 1000 screened infants will require PCHI investigation and management. Prevalence is almost 7 times higher in infants admitted to NICU. Strengths of our study include the systematic search strategy and robust statistical methods. Our findings are limited to very highly-developed countries. Estimates were restricted by lack of high-quality reporting on attrition and surveillance. Improved reporting of surveillance and attrition should be encouraged to enable evaluation of screening programme performance.

School-based interventions

#THE PRIMARY OUTCOMES OF THE SOCIAL AND EMOTIONAL EDUCATION AND DEVELOPMENT (SEED) TRIAL: A STRATIFIED, CLUSTER RANDOMISED TRIAL OF A MULTI-COMPONENT PRIMARY SCHOOL INTERVENTION IN SCOTLAND AIMED AT IMPROVING PUPILS' SOCIAL AND EMOTIONAL WELLBEING

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Background The Social and Emotional Education and Development (SEED) intervention process aimed to improve the social and emotional wellbeing (SEW) of primary school pupils. The iterative process involved three components: 1. questionnaire completion: 2. providing benchmarked feedback to all staff; and 3. All staff involved in reflexive discussion, led by educational psychologists, to facilitate selection and implementation of evidence-based initiatives (resource guide provided) to address pupils' SEW needs.

Methods A stratified randomised controlled trial involved 37 schools across Scotland and was conducted between 2013 and 2018. This involved 2639 pupils across two cohorts. At baseline the younger cohort were aged 4–5 and the older cohort were aged 8–9. After a one year gap, to enable commencement of action plans, three waves of follow-up data were collected annually. The primary outcome was the Total Difficulties score from the Strengths and Difficulties Questionnaire (SDQ) at Follow-up 3, when the younger pupils were aged 8–9 and the older pupils were aged 12–13. Secondary outcomes included all five SDQ subscales.

Hierarchical regression analysis allowing for clustering at school learning community level was conducted in the statistical package, 'R'. Missing data was handled using repeated measures.

Results The primary outcome, pupils' SDQ Total Difficulties at Follow-up 3, showed a statistically significant result in the desired direction: −1.334 (−1.918, −0.751), p<0.001. (Please note these are preliminary results and are still to be formally published, whilst robust, final figures may vary slightly after reviewers' comments). All five SDQ subscales also showed beneficial and statistically significant results.

Subgroup analysis showed that all results were stronger for the older cohort, particularly the older boys. The results were significant for both affluent and deprived pupils.

Discussion The SEED intervention process led to beneficial results for the social and emotional wellbeing of intervention schools' pupils. The Scottish Government are actively planning a SEED type of process for Scotland, we hope to extend that throughout the UK. Longer term outcomes can be explored using routine data.

A PROCESS EVALUATION OF THE SOCIAL AND EMOTIONAL EDUCATION AND DEVELOPMENT TRIAL: CASE STUDY FINDINGS

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Background The Social and Emotional Education and Development programme (SEED) aims to improve the social and emotional wellbeing (SEW) of primary school pupils. It is based on a cycle of collecting school specific data on pupil and staff SEW, providing benchmarked feedback and facilitating the adoption of evidence-based initiatives to address need.

A stratified randomised controlled trial (RCT) involved 37 schools across three local authority districts in Scotland between 2013 and 2017. Complementing the RCT was a detailed process evaluation, which enabled interpretation of the trial outcomes and answered secondary questions on implementation, mechanisms and context. We present the first stage of the process evaluation, an assessment of the likely